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Case Report

METASTATIC MELANOMA IN THE BREAST WITH UNKNOWN PRIMARY

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Abstract

Secondary in the breast is a very rare condition but may occur usually from contralateral breast and from others like lymphoma, melanoma, ovarian tumors, and pulmonary malignancies and malignancies of the gastrointestinal and genitourinary tract. Among the primary diseases, melanoma is notorious and unpredictable in its metastatic potentiality and organ of dissemination. There are few reported cases with metastatic melanoma in the breast. We report a case of metastatic deposits in the breasts of a 45-year-old lady who presented with bilateral breast lumps with axillary lymphadenopathy having no primary site of melanoma.

Key Words: Melanoma, seconderies in the breasts, Melanoma of the breasts.

Case Report

A 45 year old diabetic lady presented with painless rapidly growing lumps in her both breasts along with axillary lymphadenopathy. She had no skin lesion all over the body during presentation and did not give any history of disappearance or excision of any lesion from her body. Her bowel, bladder and menstrual history were uneventful. Digital rectal examination as well as per vaginal examination revealed normal. She had no features of liver, lung, bone and cerebral metastasis. With this, we advised her baseline investigations for diagnosis and to rule out metastasis. FNAC from breast lumps showed poorly differentiated carcinoma. Chest X-ray and ultrasonography of abdomen revealed nodular opacity in right lung field and space occupying lesion at liver as well para-aortic Lymphadenopathy respectively. Subsequently open biopsy was done from the breast lumps and histopathology revealed that nodular lesions were almost totally replaced by metastatic deposits of melanoma. Immunohistochemical (S-100) expression was indicated in favor of melanoma. CT scan of brain revealed bilateral cerebral metastases. With all the supportive evidence the patient was treated with chemotherapy, but the disease remained progressive and ultimately the patient succumbed to death within four months of diagnosis.

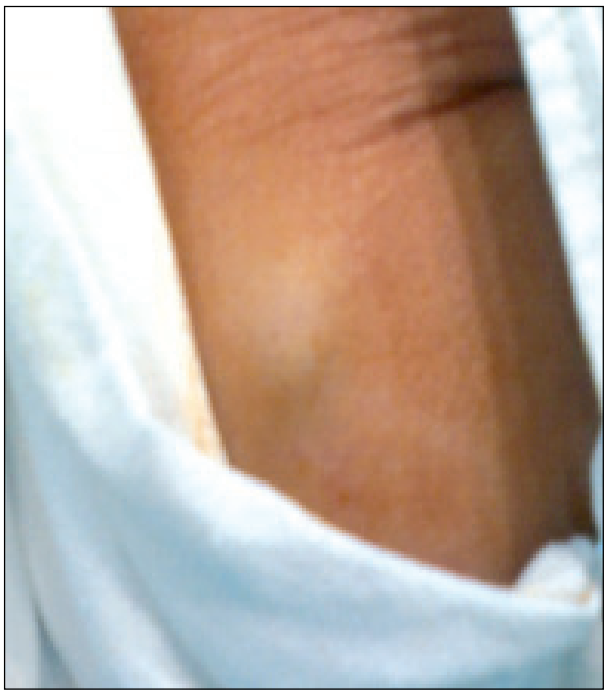

Fig.-1: *Breast lump*

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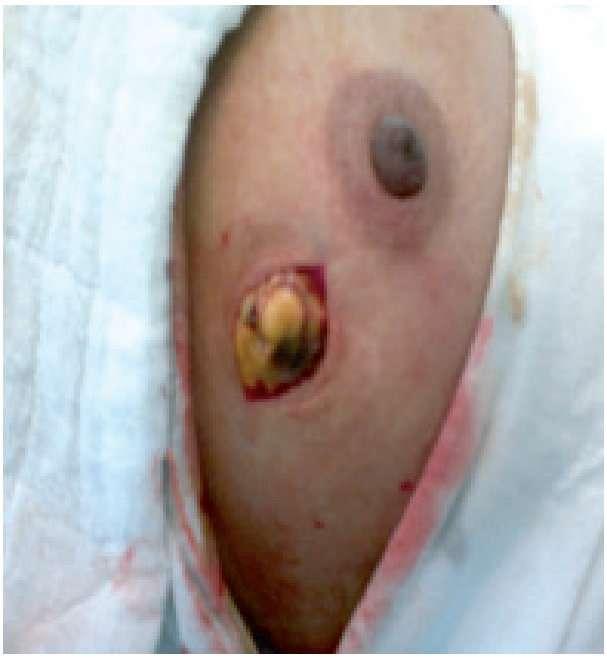

Fig.-2: *Breast lump through wound*

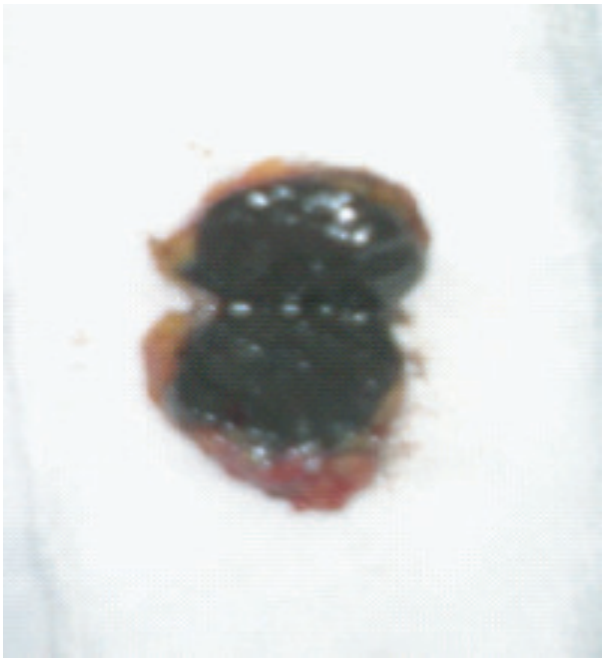

Fig-3: *Macroscopic view*

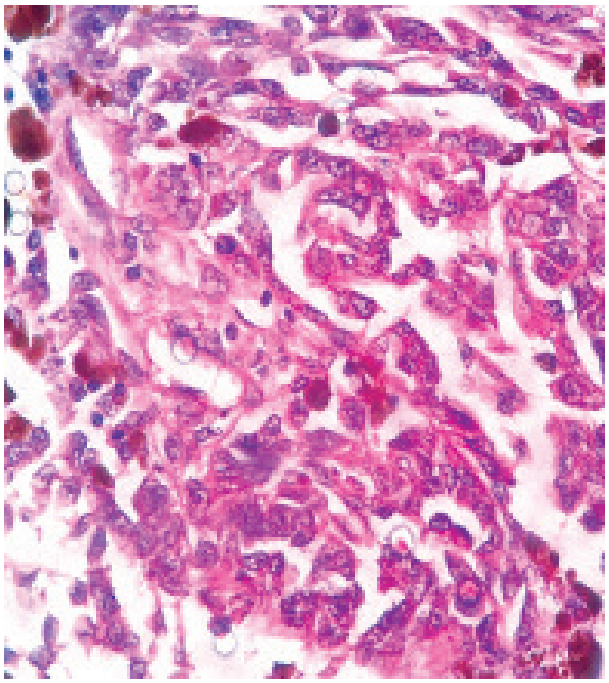

Fig.-4: *Microcopic view*

Discussion

Metastasis from any primary cancer to breast comprise 0.5-6.6% of all breast malignancies[1]. Among them, the primary contralateral breast is dominant and other extra-mammary sites like lymphoma, melanoma, ovarian tumors, pulmonary neoplasm, gastrointestinal and genitourinary malignancy contribute to 1.2% to 2%[2-4]. Out of all extra-mammary diseases, melanoma comprises the major fraction of metastatic tumor to the breast and it may happen even years after excision[5]. Very rarely primary site may not be detectable[3,6,7]. Such metastatic melanoma of unknown origin has been reported in the past involving different organs, constituting 1-8%[6-8]. But before declaring metastatic melanoma with unknown primary there are some definite rules to follow (i) metastatic melanoma confirmed clinically, histologically, and immunohistochemically; (ii) the absence of an earlier cutaneous tumor, pigmented or not, destroyed or excised without histologic examination; and (iii) exclusion of unusual primary sites, including urogenital, otolaryngologic, or ophthalmologic sites[6]. In the study by Aislinn et al.[1] 18 cases of metastatic tumors to the breast were studied, of which six were metastatic melanoma histologically and had definite primary lesion. In our patient the clinical suspicion was bilateral carcinoma breast with axillary lymph node metastasis. FNAC reflected in favor of poorly differentiated carcinoma. But open biopsy for histopathological examination revealed metastatic melanoma. Immunohistochemical expression of S-100 was confirmatory for the diagnosis of melanoma in our case. We tried to find out the lesion from history and clinical examination but it was not fruitful.

Schlagenhauff et al.[7] studied metastatic melanomas with unknown primary in 3258 patients and found only 2.3% had a metastasis with unknown primary. They found metastasis to skin (trunk, upper, and lower extremity), lymph nodes, brain, lung, liver, ovary, vagina, stomach, jejunum, and omentum. Breast was, however, not involved as a site of metastasis of melanoma in any of the cases. In another study Roy S et al.[9] found an amelanotic melanoma from a breast lump but in our case it was bilateral presentation having no primary site. One question may arise regarding its primary. There are reports that the primary lesion in melanoma may regress earlier[10] and in this patient the lesion might have regressed without being noticed by the patient.

Conclusion

Melanoma is an unpredictable cancer regarding its site of origin, behavior and metastatic potentiality and breast is not a common site for secondary metastasis. So, before concluding a case as metastatic breast carcinoma and if it is metastatic melanoma with unknown primary, clinical and radiological supports are required.

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